

IN THE DRAWINGS

The attached sheet of drawings includes changes to Fig. 2. This sheet, which includes Fig. 2, replaces the original sheet including Fig. 2.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 1-9 are currently pending in this case. Claims 1, 3, and 4 are amended, and Claims 5-8 are withdrawn. Support for the amendments to Claims 1, 3, and 4 can be found at page 7, lines 7-9, page 12, lines 1-9, and Figures 2 and 7, for example. The specification and Fig. 2 are amended to conform to the language of the claims. No new matter is added.

In the outstanding Office Action, the Election of Species Requirement was made final; the drawings were objected to because the specification and claims state that the magnetic cover 34 is cylindrical; the drawings were also objected to as not clearly showing the location of the insulation film and the location of the film non-formed portion; the specification was objected to for describing the magnetic cover as cylindrical and for not describing the non-formed portion having no insulation film; Claims 1 and 3 were objected to for stating that the magnetic cover is cylindrical; Claim 4 was objected to as not stating where the contact surface is and for reciting a member constituting a magnetic circuit; Claims 1-4 were rejected under 35 U.S.C. § 102(b) as anticipated by Klimowicz et al. (U.S. Patent No. 4,501,299, hereafter, “Klimowicz”); and Claims 1-2 and 9 were rejected under 35 U.S.C. § 102(b) as anticipated by Neff et al. (U.S. Patent No. 5,192,936, hereafter, “Neff”).

Regarding the objection to the drawings as not conforming to the language in the specification and claims stating that the magnetic cover (34) is cylindrical, the specification and claims have been amended to delete the description of the magnetic cover as cylindrical and to describe the cover as a “main” cover or a “hollow” cover. Accordingly, Applicants respectfully submit that this objection to the drawings is overcome.

Regarding the objection to the drawings as not showing the location of the insulation film, Fig. 2 is amended to clarify the location of the insulation film. Accordingly, Applicants respectfully submit that this objection to the drawings is overcome.

Regarding the objection to the drawings indicating that it is unclear where the film non-formed portion having no insulation film is, Applicants respectfully submit that reference number (34d) shown in Figure 2 and described on page 9, lines 2-3 indicates the location of this area. Accordingly, Applicants respectfully submit that this objection to the drawings is overcome.

Regarding the objection to the specification for describing a cylindrical cover, the specification has been amended to replace the term “cylindrical” in the description of the cover with the term “main” where appropriate. Accordingly, Applicants respectfully submit that the specification conforms to the description in the drawings, and the objection is overcome.

Regarding the objection to the specification regarding the location of the non-formed portion having no insulation film, Applicants respectfully submit that as Figure 2, reference number (34d) indicates a film non-formed portion (34d), and the specification at page 9, lines 2 and 3, describes reference number (34d), the objection is overcome.

Regarding the objection to Claims 1 and 3 for referring to a cylindrical cover, Applicants respectfully submit that amended Claims 1 and 3 do not recite a “cylindrical” cover. Accordingly, Applicants respectfully submit that the rejection is overcome.

Regarding the objection to Claim 4, Applicants respectfully submit that amended Claim 4 clearly recites that the magnetic plate and the fixed core constitute a member that is part of the magnetic circuit. As specific portions of the magnetic circuit are further identified in amended Claim 4, Applicant respectfully submits that the location of the contact surface

would be evident to one of ordinary skill in the art. Accordingly, Applicants respectfully submit that the objection to Claim 4 is overcome.

Regarding the rejection of Claims 1-4 as anticipated by Klimowicz, that rejection is respectfully traversed by the present response.

Amended Claim 1 recites, in part:

a bobbin around which a coil is wound...

an electrical insulation film which is thinner than a thickness of the magnetic cover is integrally formed on at least an inner surface among inner and outer surfaces of the magnetic cover, but not on the coil.

Accordingly, the electrical insulation film is integrally formed on an inner surface of a magnetic cover, but not on the coil itself.

In contrast, Klimowicz describes a coil (24) and frame members (28) and (29) as:

[I]n turn suitably embedded within an electrical insulator material, such as a plastic resin, which **totally surrounds** the coil and frame members, and also fills the gap between the frame members and the coil, so as to provide a durable unitized structure.¹ (emphasis added).

Accordingly, the coil and frame members are totally surrounded by the electrical insulator material. As the coil is surrounded by electrical insulator material which also fills the gap between the frame members and the coil, Klimowicz does not disclose an insulating film disposed on an inner surface of a cover, but not on the coil. Instead, as shown in Fig. 2, the spool core (22) and the coil (24) wrapped around the spool core (22) are “totally surrounded” by the electrical insulator (32), and the coil (24) is in contact with the electrical insulator (32). Accordingly, Klimowicz fails to disclose all of the features recited in amended Claim 1.

As Claims 2-4 depend from amended Claim 1, Applicants respectfully submit that Claims 2-4 patentably distinguish from Klimowicz for at least the same reasons as amended Claim 1.

¹ Klimowicz, col. 6, lines 43-48.

Regarding the rejection of Claims 1, 2, and 9 as anticipated by Neff, that rejection is respectfully traversed by the present response.

Neff describes an encapsulant (45) acting as an insulator inside the can (43). As shown in Figure 2, the encapsulant (45) fills the interior space of the can (43). In describing the encapsulant (45), Neff states:

As shown in FIGS. 2, 4 and 5, the **internal space between the coil 30 and the can 43 is filled with a suitable potting or encapsulant material 45** which is an electrical insulator and sealant to protect the coil 30 from moisture, and to provide a better transfer material for heat in that internal areas of the solenoid, instead of air.² (emphasis added).

Accordingly, Neff, like Klimowicz, fails to disclose an insulating film disposed on an inner surface of a cover, but not on the coil, and Applicants respectfully submit that amended Claim 1 patentably distinguishes over Neff for at least the reasons discussed above.

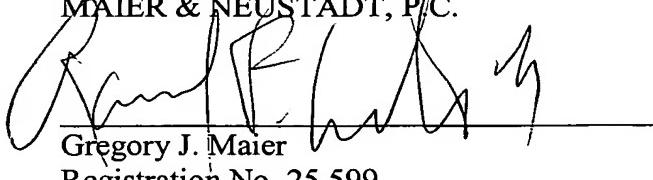
As Claims 2 and 9 depend from amended Claim 1, Applicants respectfully submit that Claims 2 and 9 patentably distinguish over Neff for at least the same reasons as amended Claim 1.

² Neff, col. 3, lines 32-38.

Consequently, in light of the above discussion and in view of the present amendments, the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Registration No. 25,599

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/03)

Raymond F. Cardillo, Jr.
Registration No. 40,440
Attorneys of Record

GJM:RFC:LS\la
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